CONTENTS OF VOLUME 26

NUMBER 1

	1	Acknowledgement of Reviewers 2000
D. DAS and T. N. VEZIROĞLU	13	Hydrogen production by biological processes: a survey of literature
A. MIDILLI, M. DOGRU, C. R. HOWARTH and T. AYHAN	29	Hydrogen production from hazelnut shell by applying air-blown downdraft gasification technique
L. C. DE LIMA and T. N. VEZIROĞLU	39	Long-term environmental and socio-economic impact of a hydrogen energy program in Brazil
S.-i. TANAKA, N. HIROSE, T. TANAKI and Y. H. OGATA	47	The effect of tin ingredients on electrocatalytic activity of Raney-Ni prepared by mechanical alloying
C. G. BAUER and T. W. FOREST	55	Effect of hydrogen addition on the performance of methane-fueled vehicles. Part I: effect on S.I. engine performance
C. G. BAUER and T. W. FOREST	71	Effect of hydrogen addition on the performance of methane-fueled vehicles. Part II: driving cycle simulations
M. PEHNT	91	Life-cycle assessment of fuel cell stacks
K. T. CHUANG, A. R. SANGER, S. V. SLAVOV and J. C. DONINI	103	A proton-conducting solid state H_2S–O_2 fuel cell. 3. Operation using H_2S–hydrocarbon mixtures as anode feed
Announcements	109	Hydrogen Energy Progress XII, Proceedings 12th World Hydrogen Energy Conference, Buenos Aires, Argentina, 21–25 June 1998
	110	Fifth Maghrebine Conference for Mechanical Studies, Brack, Libya, 5–7 February 2001
	111	4th International Symposium on New Materials for Electrochemical Systems, Montreal, Canada, 9–13 July 2001
	112	5th International Conference on New Energy Systems and Conversions, Shanghai, P.R. China, 22–25 August 2001
	113	International Association for Hydrogen Energy

NUMBER 2

P. J. SEBASTIAN	115	Guest Editor's Commentary Photoelectrochemical water splitting for hydrogen generation
S. A. GAMBOA and P. J. SEBASTIAN	117	Electrochemical characterization of a $MmNi_{5-x}M_x$ electrode for rechargeable Ni/MH battery
P. J. SEBASTIAN, N. R. MATHEWS, X. MATHEW, M. PATTABI and J. TURNER	123	Photoelectrochemical characterization of SiC

O. KHASELEV, A. BANSAL and J. A. TURNER	127	High-efficiency integrated multijunction photovoltaic/electrolysis systems for hydrogen production
M. GENG, F. FENG, J. HAN, A. J. MATCHETT and D. O. NORTHWOOD	133	Anodic polarization and galvanostatic investigation of a metal hydride alloy electrode
P. J. SEBASTIAN, A. L. OCAMPO and J. MOREIRA	139	Sintered $Mo_xS_y(CO)_n$ and $Mo_x(CO)_n$: application in oxygen reduction reaction, hydrogen evolution and supercapacitors
F. MANZINI, J. ISLAS and M. MARTÍNEZ	145	Reduction of greenhouse gases using renewable energies in Mexico 2025
J. A. CHÁVEZ-CARVAYAR	151	Stoichiometry and properties of new calcium–ferrite-based phases
S. NIETO-RAMOS and M. S. TOMAR	159	Synthesis of lithium intercalation materials for rechargeable battery
M. GENG, F. FENG, P. J. SEBASTIAN, A. J. MATCHETT and D. O. NORTHWOOD	165	Charge transfer and mass transfer reactions in the metal hydride electrode
M. PATTABI, R. H. CASTELLANOS, R. CASTILLO, A. L. OCAMPO, J. MOREIRA, P. J. SEBASTIAN, J. C. MCCLURE and X. MATHEW	171	Electrochemical characterization of tungsten carbonyl compound for oxygen reduction reaction
C.-H. LEE, S.-E. BAE, C.-W. LEE, D.-H. JUNG, C.-S. KIM and D.-R. SHIN	175	Electrooxidation of methanol on ruthenium oxide layer supported by basal plane graphite in acid media
Announcements	179	Hydrogen Energy Progress XII, Proceedings 12th World Hydrogen Energy Conference, Buenos Aires, Argentina, 21–25 June 1998
	180	Fifth Maghrebine Conference for Mechanical Studies, Brack, Libya, 5–7 February 2001
	181	4th International Symposium on New Materials for Electrochemical Systems, Montreal, Canada, 9–13 July 2001
	182	Fifth International Conference on ECOMATERIALS, Honolulu, Hawaii, USA, 2–4 October 2001
	183	International Association for Hydrogen Energy

NUMBER 3

J. E. FUNK	185	Thermochemical hydrogen production: past and present
K. OTSUKA, A. MITO, S. TAKENAKA and I. YAMANAKA	191	Production of hydrogen from methane without CO_2-emission mediated by indium oxide and iron oxide
M. P. RZAYEVA, O. M. SALAMOV and M. K. KERIMOV	195	Modeling to get hydrogen and oxygen by solar water electrolysis
R. P. OMORJAN, R. N. PAUNOVIC, M. N. TEKIC and M.G. ANTOV	203	Maximal extent of an isothermal reversible gas-phase reaction in single- and double-membrane reactors; direct thermal splitting of water

O. SAVADOGO and E. NDZEBET	213	Influence of $SiW_{12}O_{40}^{4-}$ on the electrocatalytic behaviour of Pt–Co alloy supported on carbon for water electrolysis in 3 M KOH aqueous solution
D. J. DAVIDSON and O. N. SRIVASTAVA	219	Studies on the hydrogen absorption/desorption properties of $Zr_{1-x}Mm_xFe_{1.4}Cr_{0.6}$ and $Zr_{1-2x}Mm_xTi_xFe_{1.4}Cr_{0.6}$ ($x = 0$, 0.05, 0.1 and 0.2) Laves phase alloys
B. M. SAMSUN, S. FUKADA and H. FUJIWARA	225	Hydrogen isotope absorption amount and rate of Pd–Al_2O_3 pellets
V. V. SARMA, S. S. S. RAMAN, D. J. DAVIDSON and O. N. SRIVASTAVa	231	On the mechanically pulverized $MmNi_{4.6}Fe_{0.4}$ as a viable hydrogen storage material
K.-J. JANG, G. A. FATEEV, J.-G. PARK, S.-C. HAN, P. LEE and J.-Y. Lee	237	Simulation of the metal hydride heat pump system with the single and double reactors
L. J. PETTERSSON and R. WESTERHOLM	243	State of the art of multi-fuel reformers for fuel cell vehicles: problem identification and research needs
C. UYKUR, P. F. HENSHAW, D. S.-K. TING and R. M. BARRON	265	Effects of addition of electrolysis products on methane/air premixed laminar combustion
S. P. CICCONARDI, E. JANNELLI, A. PERNA and G. SPAZZAFUMO	275	Parametric analysis of a steam cycle with a quasi-isothermal expansion
Short Communication		
A. K. VIJH	281	Hydrino atom: novel chemistry or invalid physics?
Announcements	283	Hydrogen Energy Progress XII, Proceedings 12th World Hydrogen Energy Conference, Buenos Aires, Argentina, 21–25 June 1998
	284	Encyclopedia of Life Support Systems, UNESCO-EOLSS. Energy Carrier and the Conversion, Encyclopedia of Hydrogen Energy Systems
	285	Third International Conference on Hydrogen Treatment of Materials (HTM-2001), Donetsk, Ukraine, 14–17 May 2001
	286	4th International Symposium on New Materials for Electrochemical Systems, Montreal, Canada, 9–13 July 2001
	287	5th International Conference on New Energy Systems and Conversions, Shanghai, P.R. China, 22–25 August 2001
	288	Fifth International Conference on ECOMATERIALS, Honolulu, Hawaii, USA, 2–4 October 2001
	289	International Association for Hydrogen Energy
NUMBER 4		
S. AHMED and M. KRUMPELT	291	Hydrogen from hydrocarbon fuels for fuel cells
H. HARADA	303	Isolation of hydrogen from water and/or artificial seawater by sonophotocatalysis using alternating irradiation method

R. L. MILLS, M. NANSTEEL and Y. LU	309	Observation of extreme ultraviolet hydrogen emission from incandescently heated hydrogen gas with strontium that produced an anomalous optically measured power balance
R. L. MILLS	327	Temporal behavior of light-emission in the visible spectral range from a Ti–K_2CO_3–H cell
Y. L. DU, X. G. YANG, Q. A. ZHANG, Y. Q. LEI and M. S. ZHANG	333	Phase structures and electrochemical properties of the Laves phase hydrogen storage alloys $Zr_{1-x}Ti_x(Ni_{0.6}Mn_{0.3}V_{0.1}Cr_{0.05})_2$
R. L. MILLS, B. DHANDAPANI, M. NANSTEEL, J. HE, T. SHANNON and A. ECHEZURIA	339	Synthesis and characterization of novel hydride compounds
C. HAYNES and W. J. WEPFER	369	Characterizing heat transfer within a commercial-grade tubular solid oxide fuel cell for enhanced thermal management
L. F. BROWN	381	A comparative study of fuels for on-board hydrogen production for fuel-cell-powered automobiles
Short Communication		
A. LASIA	399	Comments on the paper: "Comparative effects of adsorbed S-species on H sorption into Pd from UPD and OPD H: a kinetic analysis" by S.Y. Qian, B.E. Conway, G. Jerkiewicz
T. OHTA	401	A note on the gas-evolution of mechano-catalytic water-splitting system
	403	Letter to the Editor
Announcements	405	Hydrogen Energy Progress XII, Proceedings 12th World Hydrogen Energy Conference, Buenos Aires, Argentina, 21–25 June 1998
	406	XIV World Hydrogen Energy Conference
	407	Russian National Symposium on Power Engineering, The 3rd International Symposium on Energy, Environment & Economics
	408	Encyclopedia of Life Support Systems (EOLSS). Developed under the auspices of the UNESCO
	409	Third International Conference on Hydrogen Treatment of Materials (HTM-2001), Donetsk, Ukraine, 14–17 May 2001
	410	Fifth International Conference on ECOMATERIALS, Honolulu, Hawaii, USA, 2–4 October 2001
	411	Hydrogen Energy System: A clean and permanent energy infrastructure for sustainable development
	412	International Association for Hydrogen Energy
NUMBER 5		
	413	ICHMS'99 Organizers and Sponsors
	415	International advisory and organizing committee

YVES SILLARD and FAUSTO PEDRAZZINI	417	Welcoming message
T. NEJAT VEZIROGLU	419	Welcome to the participants of ICHMS'99
S.O. DOVGYI	421	Dear Colleagues!
B.E. PATON	423	Dear Colleagues!
FRANTISEK JANOUCH	425	Dear Colleagues
	427	Dear Colleagues, guests, ladies and gentleman!
A.G. ALEKSANYAN and S.K. DOLUKHANYAN	429	Combustion of niobium in hydrogen and nitrogen. Synthesis of niobium hydrides and hydridonitrides
V.Sh. SHEKHTMAN, S.K. DOLUKHANYAN, G.E. ABROSIMOVA, K.A. ABRAHAMYAN, A.G. ALEKSANYAN, N.N. AGHAJANYAN and O.P. TER-GALSTYAN	435	The nanocrystalline forming by combustion synthesis of Ti (Zr) hydrides
R.S. MOTTRAM, B. DAVIS, V.A. YARTYS and I.R. HARRIS	441	The use of metal hydride powder blending in the production of NdFeB-type magnets
V.N. FOKIN, E.E. FOKINA, B.P. TARASOV, I.I. KOROBOV and S.P. SHILKIN	449	Hydrides $ScFe(Ni)_2H_x$: preparation and properties
A.G. VAKHNEY, A.N. YARESKO, V.N. ANTONOV and V.V. NEMOSHKALENKO	453	The effect of hydrogen on the electronic structure and cohesive properties of iron-based alloys doped by chromium and nickel
E.A. EVARD, A.A. KURDUMOV, F.N. BERSENEVA and I.E. GABIS	457	Permeation of hydrogen through amorphous ferrum membrane
N.G. PRIMAKOV, V.A. RUDENKO and V.V. KAZARNIKOV	461	Effect of mechanical stresses on hydrogen distribution in VA subgroup of the periodical table of elements
A.N. GOLUBKOV, S.K. GRISHECHKIN and A.A. YUKHIMCHUK	465	System for investigation of hydrogen isotopes — solid body interaction at 500 MPa
V.A. TATARENKO	469	Interaction of interstitial hydrogen atoms within h.c.p. metals and distribution of diffuse radiation-scattering intensity in reciprocal space
V.D. DOBROVOLSKY, E.I. KOPYLOVA, L.M. KULIKOV, A.A. SEMJONOV-KOBZAR, Yu.M. SOLONIN and L.G. AKSELRUD	477	X-ray spectroscopy investigation of hydrogen-containing phases based on the compounds of tungsten with VI group elements
A. MISIUK, J. BĄK-MISIUK, A. BARCZ, A. ROMANO-RODRIGUEZ, I.V. ANTONOVA, V.P. POPOV, C.A. LONDOS and J. JUN	483	Effect of annealing at argon pressure up to 1.2 GPa on hydrogen-plasma-etched and hydrogen-implanted single-crystalline silicon
O.G. RADCHENKO and O.I. GETMAN	489	Microstructure evolution of fine-grain Fe–Cu composites during heat treatment in hydrogen
J.-L. BOBET, E. AKIBA and B. DARRIET	493	Study of Mg-M (M = Co, Ni and Fe) mixture elaborated by reactive mechanical alloying: hydrogen sorption properties
A.A. NOVAKOVA, T.Yu. KISELEVA, O.V. AGLADZE, N.S. PEROV and B.P. TARASOV	503	The effect of hydrogen incorporation in the nanocrystalline iron particles on their magnetic properties
B. CONSTANTINESCU, F. VASILIU and G. ALEXANDRU	507	Hydrogen isotopes behavior in nickel in nuclear fusion reactor conditions

G. KHADZHAI	511	The electrical resistance of the tantalum–hydrogen system at low temperatures
M. VICTORIA BIEZMA	515	The role of hydrogen in microbiologically influenced corrosion and stress corrosion cracking
A.N. NAZAROV, V.M. PINCHUK, T.V. YANCHUK, V.S. LYSENKO, Ya.N. VOVK, S. RANGAN, S. ASHOK, V. KUDOYAROVA and E.I. TERUKOV	521	Hydrogen effect on enhancement of defect reactions in semiconductors: example for silicon and vacancy defects
Yu.M. LYTVYNENKO, S.V. KUCHERIAVA and O.N. GRIGORIEV	527	A method for production of amorphous powders of hydrogen-absorbing alloys
I.G. SLYS, V.I. BEREZANSKAYA, I.A. KOSSKO and A.P. POMYTKIN	531	Development of new corrosion-resistant and wear-resistant materials for use in agressive hydrogen medium
Announcements	537	Hydrogen Energy Progress XII
	538	International Scientific Journal "Alternative Energy and Ecology" - ISJAEE
	539	4th Internationl Symposium on Electrocatalysis - From Theory to Industrial Applications (ECS'02), Como, Italy, 22–25 September 2002
	540	Encyclopedia of Life Support Systems (EOLSS)
	541	Third International Conference on Hydrogen Treatment of Materials (HTM-2001)
	542	New Materials for Electrochemical Systems, 4th International Symposium
	543	Russian National Symposium on Power Engineering
	544	XIV World Hydrogen Energy Conference
	545	International Association for Hydrogen Energy
NUMBER 6		
A. T. NIELSEN, H. AMANDUSSON, R. BJORKLUND, H. DANNETUN, J. EJLERTSSON, L.-G. EKEDAHL, I. LUNDSTRÖM and B. H. SVENSSON	547	Hydrogen production from organic waste
M. LEVENT	551	Water–gas shift reaction over porous catalyst: temperature and reactant concentration distribution
M. M. JAKSIC	559	Hypo–hyper-d-electronic interactive nature of interionic synergism in catalysis and electrocatalysis for hydrogen reactions
R. L. MILLS	579	Observation of extreme ultraviolet emission from hydrogen-KI plasmas produced by a hollow cathode discharge
Y.-H. XU, C.-P. CHEN, W.-X. GENG and Q.-D. WANG	593	The hydrogen storage properties of Ti–Mn-based C14 Laves phase intermetallics as hydrogen resource for PEMFC

L. ZHOU and Y. ZHOU 597 Determination of compressibility factor and fugacity coefficient of hydrogen in studies of adsorptive storage

W.-X. CHEN 603 Kinetics of hydrogen evolution reaction on hydrogen storage alloy electrode in alkaline solution and effects of surface modification on the electrocatalytic activity for hydrogen evolution reaction

K. J. KIM, B. MONTOYA, A. RAZANI and K.-H. LEE 609 Metal hydride compacts of improved thermal conductivity

R. COWNDEN, M. NAHON and M. A. ROSEN 615 Modelling and analysis of a solid polymer fuel cell system for transportation applications

J. HAMELIN, K. AGBOSSOU, A. LAPERRIÈRE, F. LAURENCELLE and T. K. BOSE 625 Dynamic behavior of a PEM fuel cell stack for stationary applications

T. SUSAI, M. KANEKO, K. NAKATO, T. ISONO, A. HAMADA and Y. MIYAKE 631 Optimization of proton exchange membranes and the humidifying conditions to improve cell performance for polymer electrolyte fuel cells

I. WIERZBA and V. KILCHYK 639 Flammability limits of hydrogen–carbon monoxide mixtures at moderately elevated temperatures

Announcements 645 Hydrogen Energy Progress XII

646 5th International Conference on New Energy Systems and Conversions

647 Russian National Symposium on Power Engineering

648 5th International Conference on ECOMATERIALS

649 ICAT 2001: International Conference on Automative Technology

650 Call for Papers: The 13th International Symposium on Transport Phenomena (ISTP-13)

651 International Association for Hydrogen Energy

NUMBER 7

S. LICHT, B. WANG, S. MUKERJI, T. SOGA, M. UMENO and H. TRIBUTSCH 653 Over 18% solar energy conversion to generation of hydrogen fuel; theory and experiment for efficient solar water splitting

T. OHMORI, H. GO, N. YAMAGUCHI, A. NAKAYAMA, H. MAMETSUKA and E. SUZUKI 661 Photovoltaic water electrolysis using the sputter-deposited a-Si/c-Si solar cells

F. MARIÑO, M. BOVERI, G. BARONETTI and M. LABORDE 665 Hydrogen production from steam reforming of bioethanol using $Cu/Ni/K/\gamma\text{-}Al_2O_3$ catalysts. Effect of Ni

K. B. DHANALAKSHMI, S. LATHA, S. ANANDAN and P. MARUTHAMUTHU 669 Dye sensitized hydrogen evolution from water

W. X. CHEN, Z. D. XU, J. P. TU, H. Y. LI, J. YUAN, S. CHEN and S. N. BAO 675 Hydrogen adsorption on hydrogen storage alloy surface and electrochemical performances of the $MlNi_{4.0}Co_{0.6}Al_{0.4}$ alloy electrodes before and after surface treatment

A. VISINTIN, H. A. PERETTI, C. A. TORI and W. E. TRIACA	683	Hydrogen absorption characteristics and electrochemical properties of Ti substituted Zr-based AB_2 alloys
C. GU, G.-H. GAO, Y.-X. YU and Z.-Q. MAO	691	Simulation study of hydrogen storage in single walled carbon nanotubes
X. YUAN and N. XU	697	Electrochemical performance of hydrogen storage alloy $MlNi_{3.65}Co_{0.75}Mn_{0.4}Al_{0.2}$ with various particle sizes
J.-G. PARK, K.-J. JANG, P. S. LEE and J.-Y. LEE	701	The operating characteristics of the compressor-driven metal hydride heat pump system
A. I. SOLOVEY and V. P. FROLOV	707	Metal hydride heat pump for watering systems
W. H. FLEMING, J. A. KHAN and C. A. RHODES	711	Effective heat transfer in a metal-hydride-based hydrogen separation process
F. FENG, M. GENG and D. O. NORTHWOOD	725	Electrochemical behaviour of intermetallic-based metal hydrides used in Ni/metal hydride (MH) batteries: a review
H. UCHIDA, T. MATSUMOTO, S. WATANABE, K. KOBAYASHI and H. HOSHINO	735	A paste type negative electrode using a $MmNi_5$ based hydrogen storage alloy for a nickel–metal hydride (Ni–MH) battery
V. E. GROMOV, V. Ya. TSELLERMAER, B. M. LEBOSHKIN, E. V. KOZLOV, V. I. BAZAIKIN and E. S. KUCHUMOVA	741	Redistribution of hydrogen in calibrated wire
R. L. MILLS, T. ONUMA and Y. LU	749	Formation of a hydrogen plasma from an incandescently heated hydrogen-catalyst gas mixture with an anomalous afterglow duration
C. D. DUDFIELD, R. CHEN and P. L. ADCOCK	763	A carbon monoxide PROX reactor for PEM fuel cell automotive application
K. PEHR, P. SAUERMANN, O. TRAEGER and M. BRACHA	777	Liquid hydrogen for motor vehicles — the world's first public LH_2 filling station
Announcements	783	Hydrogen Energy Progress XII
	784	Russian National Symposium on Power Engineering
	785	ICAT 2001: International Conference on Automative Technology
	786	International Scientific Journal "Alternative Energy and Ecology" — ISJAEE
	787	4th International Symposium on Electrocatalysis — From Theory to Industrial Applications (ECS'02), Como, Italy, 22–25 September 2002
	788	Encyclopedia of Life Support System (EOLSS)
	789	New Materials for Electrochemical Systems, 4th International Symposium
	790	XIV World Energy Conference
	791	Solar Hydrogen Energy — The POWER to save the Earth
	792	11th Solar Paces International Symposium
	793	International Association for Hydrogen Energy

NUMBER 8

W. YANHUI and W. DIYONG	795	The experimental research for production of hydrogen from *n*-octane through partially oxidizing and steam reforming method
Y. ZHANG, S.-K. ZHANG, L.-X. CHEN, Y.-Q. LEI and Q.-D. WANG	801	The study on the electrochemical performance of mechanically alloyed Mg–Ti–Ni-based ternary and quaternary hydrogen storage electrode alloys
Y.F. ZHU, H.G. PAN, G.Y. WANG, M.X. GAO, J.X. MA, C.P. CHEN and Q.D. WANG	807	Phase structure, crystallography and electrochemical properties of Laves phase compounds $Ti_{0.8}Zr_{0.2}V_{1.6}Mn_{0.8-x}M_xNi_{0.6}$ (M = Fe,Al,Cr,Co)
B.K. SINGH, A.K. SINGH, A.M. IMAM and O.N. SRIVASTAVA	817	On the structural characteristics and hydrogenation behaviour of $TiMn_{1.5}$ hydrogen storage material
A.K.M.F. KIBRIA, Y.H. MO, K.S. PARK, K.S. NAHM and M.H. YUN	823	Electrochemical hydrogen storage behaviors of CVD, AD and LA grown carbon nanotubes in KOH medium
E. POIRIER, R. CHAHINE and T.K. BOSE	831	Hydrogen adsorption in carbon nanostructures
L. TÜRKER	837	Diborane–tetraborane conversion in C_{60} vesicles—a theoretical study
L. TÜRKER	843	Endohedrally hydrogen doped $C_{58}H_4$ vesicles—a theoretical study
P. BÉNARD and R. CHAHINE	849	Modeling of adsorption storage of hydrogen on activated carbons
B.K. GUPTA and O.N. SRIVASTAVA	857	Further studies on microstructural characterization and hydrogenation behaviour of graphitic nanofibres
A.L. GUSEV	863	Thermodynamic peculiarities of low-temperature regeneration of cryosorption devices in heat-insulation cavities of hydrogenous cryogenic tanks
H. HOSHINO, H. UCHIDA, H. KIMURA, K. TAKAMOTO, K. HIRAOKA and Y. MATSUMAE	873	Preparation of a nickel–metal hydride (Ni–MH) rechargeable battery and its application to a solar vehicle
R. JOHNSON, C. MORGAN, D. WITMER and T. JOHNSON	879	Performance of a proton exchange membrane fuel cell stack
H. JIN and M. ISHIDA	889	Reactivity study on a novel hydrogen fueled chemical-looping combustion
Announcements	895	Hydrogen Energy Progress XII
	896	Russian National Symposium on Power Engineering
	897	ICAT 2001: International Conference on Automative Technology
	898	5th International Conference on New Energy Systems and Conversions
	899	5th International Conference on ECOMATERIALS
	900	Call for Papers: The 13th International Symposium on Transport Phenomena (ISTP-13)
	901	Solar Hydrogen Energy — The POWER to save the Earth

	902	Hydrogen Energy Progress XIII
	903	Our Fragile World: Challenges and Opportunities for Sustainable Development. Encyclopedia of Life Support Systems (EOLSS)
	904	Trans Tech Publications: Hydrogen in Metal Systems II
	905	Biohydrogen 2002
	906	VII International Conference "Hydrogen Material Science and Chemistry of Metal Hydrides" (ICHMS'2001)
	907	International Association for Hydrogen Energy

NUMBER 9

V.A. GOLTSOV, and T.N. VEZIROGLU	909	From hydrogen economy to hydrogen civilization
Y. TAMAURA, N. KOJIMA, N. HASEGAWA, M. INOUE, R. UEHARA, N. GOKON and H. KANEKO	917	Stoichiometric studies of H_2 generation reaction for $H_2O/Zn/Fe_3O_4$ system
B. LINDSTRÖM and L.J. PETTERSSON	923	Hydrogen generation by steam reforming of methanol over copper-based catalysts for fuel cell applications
T. SUZUKI, H.-i. IWANAMI, O. IWAMOTO and T. KITAHARA	935	Pre-reforming of liquefied petroleum gas on supported ruthenium catalyst
J.H. CHUN, K.H. RA and N.Y. KIM	941	The Langmuir adsorption isotherms of electroadsorbed hydrogens for the cathodic hydrogen evolution reactions at the $Pt(100)/H_2SO_4$ and LiOH aqueous electrolyte interfaces
H.Y. PARK, I. CHANG, W.I. CHO, B.W. CHO, H. JANG, S.R. LEE and K.S. YUN	949	Electrode characteristics of the Cr and La doped AB_2-type hydrogen storage alloys
M.D. MAT and Y. KAPLAN	957	Numerical study of hydrogen absorption in an Lm-Ni_5 hydride reactor
R.L. MILLS, B. DHANDAPANI, M. NANSTEEL, J. HE and A. VOIGT	965	Identification of compounds containing novel hydride ions by nuclear magnetic resonance spectroscopy
S. VERHELST and R. SIERENS	981	Aspects concerning the optimisation of a hydrogen fueled engine
S. VERHELST and R. SIERENS	987	Hydrogen engine-specific properties
L. YOU and H. LIU	991	A parametric study of the cathode catalyst layer of PEM fuel cells using a pseudo-homogeneous model
	1001	Nuclear Hydrogen Society Established in Japan
T.N. VEZIROGLU	1003	Dr. Ohta Decorated with Second Highest Order of Japan
Announcements	1005	Hydrogen Energy Progress XII
	1006	ICAT 2001: International Conference on Automative Technology

	1007	International Scientific Journal "Alternative Energy and Ecology"—ISJAEE
	1008	4th International Symposium on Electrocatalysis—From Theory to Industrial Applications (ECS'02), Como, Italy, 22–25 September 2002
	1009	XIV World Hydrogen Energy Conference
	1010	VII International Conference "Hydrogen Material Science and Chemistry of Metal Hydrides" (ICHMS'2001)
	1011	Solar Hydrogen Energy — The POWER to save the Earth
	1012	11th Solar Paces International Symposium
	1013	Biohydrogen 2002
	1014	Remote Sensing Applications
	1015	International Association for Hydrogen Energy

NUMBER 10

W. SEIFRITZ	1017	On the eclectic concept of sustainability
D. HIRSCH, M. EPSTEIN and A. STEINFELD	1023	The solar thermal decarbonization of natural gas
L. LI, T. AKIYAMA and J.-i. YAGI	1035	Activation behaviors of Mg_2NiH_4 at different hydrogen pressures in hydriding combustion synthesis
R.L. MILLS	1041	Spectroscopic identification of a novel catalytic reaction of atomic hydrogen and the hydride ion product
R.L. MILLS	1059	The nature of free electrons in superfluid helium—a test of quantum mechanics and a basis to review its foundations and make a comparison to classical theory
N. RAJALAKSHMI, K.S. DHATHATHREYAN and S. RAMAPRABHU	1097	Electrochemical investigations of $ZrCr_mFe_nCo_pV_o$ $(m + n + o + p = 2)$ electrode for Ni–MH battery applications
A. DEMIN and P. TSIAKARAS	1103	Thermodynamic analysis of a hydrogen fed solid oxide fuel cell based on a proton conductor
G. VERKHIVKER and E. YANTOVSKI	1109	Zero-emissions gas-fired cogeneration of power and hydrogen
L. BROMBERG, D.R. COHN, A. RABINOVICH and J. HEYWOOD	1115	Emissions reductions using hydrogen from plasmatron fuel converters
Announcements	1123	Hydrogen Energy Progress XII
	1124	ICAT 2001: International Conference on Automative Technology
	1125	Biohydrogen 2002
	1126	Hydrogen Energy Progress XIII
	1127	Fifth International Conference on ECOMATERIALS

1128 World Congress for a Hydrogen Economy

1129 Tomorrow's Energy

1130 11th Solar Paces International Symposium

1131 Sustainable Assessment Method for Energy Systems

1132 Dubrovnik Conference on Sustainable Development of Energy, Water and Environment Systems

1133 Biohydrogen II

1134 Conference Announcement. Integration of Renewable Energy Sources and Distributed Generation in Energy Systems, Brussels 25–26 September 2001

1135 International Association for Hydrogen Energy

NUMBER 11

P. KRUGER 1137 Electric power requirement for large-scale production of hydrogen fuel for the world vehicle fleet

H. ZHU, T. WAKAYAMA, Y. ASADA and J. MIYAKE 1149 Hydrogen production by four cultures with participation by anoxygenic phototrophic bacterium and anaerobic bacterium in the presence of NH_4^+

N. KUMAR and D. DAS 1155 Electron microscopy of hydrogen producing immobilized *E. cloacae* IIT-BT 08 on natural polymers

N. MURADOV 1165 Hydrogen via methane decomposition: an application for decarbonization of fossil fuels

YAN-HUI XU, CHANG-PIN CHEN, QI-DONG WANG and LI-XIN CHEN 1177 The effect of temperature on the electrode properties of the directly prepared Ti_3Ni_2 alloy

I.P. JAIN, B. DEVI and A. WILLIAMSON 1183 Hydrogen in UHV deposited FeTi thin films

B. DEVI, M. VASHISTHA and I.P. JAIN 1189 Hydrogen in obliquely deposited $LaNi_5$ thin films

T. BURCHARDT 1193 Hydrogen evolution on NiP_x alloys: the influence of sorbed hydrogen

R.L. MILLS, J. DONG, W. GOOD and A. VOIGT 1199 Minimum heat of formation of potassium iodo hydride

A. BJÖRKLUND, M. MELAINA and G. KEOLEIAN 1209 Hydrogen as a transportation fuel produced from thermal gasification of municipal solid waste: an examination of two integrated technologies

Short Communications

T. OHTA 1223 A possible trick of "Hydride atom"

R.L. MILLS 1225 Author's response to "A possible trick of Hydride atom"

I. SHECHTMAN 1227 Hydrino theory—a proposed amendment

R.L. MILLS 1229 Author's response to "Hydrino theory—a proposed amendment"

R.L. MILLS 1233 Author's response to "Hydrino atom: novel chemistry or invalid physics"

Announcements

1235 Hydrogen Energy Progress XII

1236 Solar Hydrogen Energy — The POWER to save the Earth

1237 World Congress for a Hydrogen Economy

1238 11th Solar Paces International Symposium

1239 XIV World Hydrogen Energy Conference

1240 4th International Symposium on Electrocatalysis — From Theory to Industrial Applications (ECS'02), Como, Italy, 22–25 September 2002

1241 International Association for Hydrogen Energy

NUMBER 12

1243 Acknowledgement of reviewers 2001

1257 Editorial

R.-H. SONG and D.R. SHIN 1259 Influence of CO concentration and reactant gas pressure on cell performance in PAFC

D.H. JUNG, Y.-B. MYOUNG, S.-Y. CHO, D.R. SHIN and D.H. PECK 1263 A performance evaluation of direct methanol fuel cell using impregnated tetraethyl-orthosilicate in cross-linked polymer membrane

X. BOKHIMI, J.A. TOLEDO, J. NAVARRETE, X.C. SUN and M. PORTILLA 1271 Thermal evolution in air and argon of nanocrystalline MoS_2 synthesized under hydrothermal conditions

X. BOKHIMI, A. MORALES, M. AGUILAR, J.A. TOLEDO-ANTONIO and F. PEDRAZA 1279 Local order in titania polymorphs

Y.T. WANG, A.M. HERMANN, R.N. BHATTACHARYA and R.D. BLAUGHER 1289 The study of critical current density of superconducting thallium oxide films from spray-deposited precursors

A.M. HERMANN, P.A. RAMAKRISHNAN, V. BADRI, P. MARDILOVICH and W. LANDUYT 1295 Metal hydride batteries research using nanostructured additives

R.H. CASTELLANOS, A.L. OCAMPO, J. MOREIRA-ACOSTA and P.J. SEBASTIAN 1301 Synthesis and characterization of osmium carbonyl cluster compounds with molecular oxygen electroreduction capacity

A.C. HERNANDEZ and K.A. FICHTHORN 1307 Monte Carlo study of the static and dynamic behaviors of polymer chains near an adsorbent surface

S.A. GAMBOA, P.J. SEBASTIAN, M. GENG and D.O. NORTHWOOD 1315 Temperature, cycling, discharge current and self-discharge electrochemical studies to evaluate the performance of a pellet metal-hydride electrode

Announcements

1319 Hydrogen Energy Progress XII

1320 Our Future is Hydrogen!

1321 Eurosummer School: Sustainability Assessment of Hydrogen Energy Systems

1322 Hydrogen Energy Progress XIII

1323 International Association for Hydrogen Energy